PCAST Report Workgroup
<mark>Draft Transcript</mark>
March 3, 2011

Presentation

Judy Sparrow – Office of the National Coordinator – Executive Director
Good afternoon, everybody and welcome to the PCAST Workgroup. Just a reminder, this is a Federal Advisory Committee, so there will be opportunity at the end of the call for the public to make comment. Also, a reminder for workgroup members to identify yourselves when speaking and if you can keep your phone on mute when you're not talking.

Let me do a quick roll call. Paul Egerman?

Paul Egerman – Software Entrepreneur
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
William Stead?

William Stead – Vanderbilt – Chief Strategy and Information Officer
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Dixie Baker?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I'm here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Hunt Blair?

Hunt Blair – OVHA – Deputy Director
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Tim Elwell?

Tim Elwell – Misys Open Source Solutions – Vice President
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Carl Gunter?

Carl Gunter – University of Illinois – Professor
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director

John Halamka?

John Halamka – Harvard Medical School – Chief Information Officer
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Leslie Harris?

Leslie Harris – Center for Democracy & Technology – President & CEO
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Stan Huff?

Stan Huff – Intermountain Healthcare – Chief Medical Informatics Officer
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Robert Kahn? Gary Marchionini?

Gary Marchionini – University of North Carolina – Dean & Professor
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Steve Ondra?

Stephen Ondra – NeHC – Senior Policy Advisor
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Jonathan Perlin? Richard Platt? Dr. Platt will be coming in—may be a little late. Wes Rishel? Mark Rothstein?

Mark Rothstein – University of Louisville – Chair of Law and Medicine
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Steve Stack? He too, might be joining late. Eileen Twiggs?

Eileen Twiggs – Planned Parenthood Federation of America – Director
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
With that, I'll turn it over to Paul Egerman.

Paul Egerman – Software Entrepreneur
Thank you very much, Judy. I want to thank all the members of the workgroup who are participating in our call today and of course, I want to thank any members of the public who might be listening in. As Judy Sparrow said at the end of the call, we will have an opportunity for public comment. As you will see

during this call, the public comments—we take those comments extremely seriously. They're part of our overall workgroup charge. So, I thank you in advance for listening in to our call.

This should be a very interesting call today. We've had a day and a half of hearings. The hearings were on the PCAST Report and we organized as a workgroup to respond to the PCAST Report. These are the members of the workgroup that are listed on your screen right now. I think I'd say like most or like all ONC workgroups, we have an excellent group of people who are participating in our efforts.

This is our workgroup charge to quickly remind everybody. The PCAST Report was issued on December 8th. PCAST is the President's Council of Advisors on Science and Technology. The PCAST Report made a number of recommendations, most notably a recommendation to ONC relating to urgency to act on a number of issues relating to information exchange and ONC. Dr. Blumenthal responded to that request for urgency in a number of ways and one of the ways was to form this workgroup. Our charge is to sort of analyze this report, to understand the implications of the report and the implications on ONC's strategies and policies and to provide ONC with some alternatives as to how to respond to the information in the report.

As I said, we had a hearing on February 15th and 16th, which was extremely helpful. I'm going to talk a minute about the summary of the hearing. What you see on the screen is a slide that I had presented yesterday at the HIT Policy Committee meeting. If I return a minute to the workgroup charge, the basic concept is that we are supposed to be understand the report and responding to it with a sense of urgency. The sense of urgency is that by April 13th, which is the next Policy Committee meeting, we are supposed to have a final report produced. In support of that effort, I did circulate sort of what I called a summary strawman, a summary for discussion. The summary has four different sections. Sections A and B describe the report and describe the hearing. Section C and D provide discussion of what ONC's future activities are going to be. That's the workgroup charge.

The summary of the hearing that I presented yesterday, this is a summary from Section B of the report. This is summary that Bill Stead and I sort of did of what we thought were common themes. The common themes at least the two of us thought that we saw from the hearing and also from the public comments were these four things. There was a sense that the report itself probably was not well understood by a lot of people. The reason why we say that, we suspect that is if you think about it, it's a 100-page report. It uses language that most people are not comfortable with or familiar with. Like, it talks about semantics and taxonomies and tag data elements. So I think there was some misunderstandings about what the report was all about.

The other comments we had, Bill and I had at least, was that in listening to the hearing, there was I'd say an absence of consensus about the direction of the report. When I say absence of consensus, I'm not talking about a workgroup. I'm talking about the people who presented at the hearing. Also, I think that reflects our industry. I'd be curious to know if people have the same view of HIMSS Conference that I have. I attended HIMSS and I just didn't even see PCAST as a major topic. So, I think that this is an issue that people haven't quite absorbed yet.

In terms of an absence of consensus, I would say my observation about the report is that there are some people who read the report and are extremely enthusiastic about it. They read and they say, "Yes, this is exactly what we need to do. This is a great concept. This is heading us in exactly the right direction." Then, there are other people who are actually directly opposed to that. They say, "No. This is not the right direction. What we're currently doing is the right direction. Everything it says in the report we can do based on what we're currently doing. We don't need to change anything." Then there's a whole group of people that are in the middle who are interested, who maybe think it's good but are skeptical. There's a

whole range of views. The point and concept though is, at least my observation, there's not a consensus to go directly for it with the concepts that are exactly in the report.

The third concept that I saw from the hearing was just that subject of privacy and security. I mean, that was just like I would say, it's clearly a common theme and that's, in my mind, not a surprise that it would be a common theme because we're talking about a concept or a structure that's called information liquidity or data liquidity. You're talking about a concept sort of as national availability of healthcare information. So, one would naturally expect people who are very interested and concerned about privacy and security … sort of like paid very close attention, as well they should. The comment I give you about the privacy and security topics is—it's a mistake to say all the comments there were like concerns. There were a lot of comments that were very positive. People were excited about possibilities for granular choices for patients and accessibility in PHRs for patients. There were positives. So, I don't want to express it like this was only concerns.

The fourth concept that I saw from the hearing was basically—it sort of like gave a snapshot of this industry as being a bit stressed out right now, the way I describe it. This mainly came from like CIOs and vendors, but they're trying to get stage one of meaningful use done. They're worried about what the contents of stage two of meaningful use are. They're worried about ICD-10. So, the idea that something new would be sort of layered to them relatively soon—people had concerns about that.

Let me pause a minute. I talked a mile a minute perhaps expressing the sense of urgency in the report, but let me ask you, Bill, if you have anything that you want to add to what I've said so far.

William Stead – Vanderbilt – Chief Strategy and Information Officer
No, that's all on target.

Paul Egerman – Software Entrepreneur
Okay. So, what you see here—

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Paul, may I add one more?

Paul Egerman – Software Entrepreneur
Sure.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I agree with everything you've said so far. I think a fifth was that some people noted that what—the way the report was presented to us at the hearing differed from the written report. Judy Faulkner particularly noted this at the end.

Paul Egerman – Software Entrepreneur
It differed from the written report?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, the way it was described to us was different from what was in the report, especially with regard to the DEAS.

Paul Egerman – Software Entrepreneur
Yes, I think though that—the part that I think a lot of people have trouble with in the report is the report was not intended to necessarily describe a specific implementation. In other words, it wasn't necessarily

intended to say this is how you do things. A lot of what—when they described how you would do like DEAS, I think they intended that as an example and that really the report is supposed to be viewed in a directional sense. The hard part though was trying to figure out what's directional and what's like specific. So, I think that was a place where there was a fair amount of confusion. I don't know if you agree with that Bill or Dixie.

William Stead – Vanderbilt – Chief Strategy and Information Officer
I think that—how I twirl out of the confusion comes because every time we've talked to the people involved with producing the report, they've really emphasized that what was important in the report are its directional statements and that all of the specific technology statements are simply examples of a possible alternative. I think that's not well understood. I think people actually thought though that they were actually recommending those specific examples, which from any sense I've gotten was not their intent.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I would certainly agree with that, Bill. I think that that confusion is what I'm trying to get at. It wasn't just that everybody agreed or disagreed or were in the middle, but there was a lot of confusion that, in my opinion, came out in that hearing.

Paul Egerman – Software Entrepreneur
Okay, that's ….

Carl Gunter – University of Illinois – Professor
Reflecting on what Dixie's saying, I think that there were some important observations made in the oral presentation that were not in the report. So, there were things that they said that are very important and significant that did not appear in the report.

Paul Egerman – Software Entrepreneur
What would be helpful, if we could figure out a way to capture some of those. I don't know if you, Carl, or perhaps—I know Wes isn't on the phone—could write up what you think are some of those summaries of those points so that we can put that into our report.

John Halamka – Harvard Medical School – Chief Information Officer
For example, many people who read the report took it quite literally and thought it was a rip and replace strategy for taking all foundations in stage one, replacing them with something novel called the universal exchange language. Whereas, the discussions we've had verbally are saying, "Well, by universal exchange language, we didn't necessarily mean you couldn't use CDA and its variants. All we were saying is you should include some enveloping information such as the providence of the data, the patient in question and privacy flags." So, as Dixie and Carl have both said, that changes the game entirely from a rip and replace to a build on existing foundation with additional metadata for enveloping.

Leslie Harris – Center for Democracy & Technology – President & CEO
I completely agree with what John's just said. I felt like—that it wasn't just confusion about what the report meant. That there was a gloss—you can either call it a helpful gloss or a slight rewriting based on response to the initial reaction, but that gloss needs to be captured. Because our recommendations or acceptance or willing to make any kinds of suggestions that we ought to move forward with any part of this is really based sort of on this additional, I'll call it, legislative history that cannot be gleamed from the text.

Tim Elwell – Misys Open Source Solutions – Vice President

If we could capture what John just said and include that in the text somehow, I think that that would go a long way to ease a lot of concern because I think that—and I did the same thing. I read it more literally on a first pass and came away thinking that this really is a rip and replace. I think that listening to the authors and those who participated in the actual creation of the report would probably disagree with that.

Paul Egerman – Software Entrepreneur
These are important comments. Now, this issue goes to an important issue that's in sort of this draft document that Bill and I put forward. The document's written into four sections. Section A is a summary of the report. In item number three in the draft, we write something like this that says, "The existing information exchange work toward meaningful use stage one is foundational and the PCAST Report does not suggest replacing that work." Then I have a little note underneath it, "Does the workgroup agree with the above statement?" So, in taking the first one, des that statement accurately capture what John is saying and do people agree with it?

Leslie Harris – Center for Democracy & Technology – President & CEO
I guess I have concern. There's a text, people read a text and I think that the majority of people reading that text—knowledgeable people who in fact do know what those words mean—would have reached a different conclusion than how it was described. I don't know how to fudge that, but I find it hard to say that the report said that.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I agree. I took pretty careful notes, Paul. If you'd like, I'd be happy to extract a couple of examples for you.

Paul Egerman – Software Entrepreneur
Okay, so—but the—

William Stead – Vanderbilt – Chief Strategy and Information Officer
Let me—I think we need to remember that we're not critiquing the report, positive or negative. We're explaining it and we're providing alternatives for how ONC can provide, can respond.

Leslie Harris – Center for Democracy & Technology – President & CEO
I agree with you. We're not critiquing it, but if we're just saying this is PCAST, here's what it means based on—so therefore, we should do A, B, and C in response. Are we responding to the report that was presented to the president or are we responding to our enhanced understanding of, should we say, the meaning of the drafters after the hearings? I am fine with some explanatory text that says that our understanding is based on the … of the report and the additional explanations and discussion with the drafters at the hearing, but I just don't think you can say the report says because the report just doesn't say. I don't care how we get there. This is not about sort of calling it out as bad or good. It's about other people pick up the report, pick up our recommendations and those dots don't go there without further explanation.

Paul Egerman – Software Entrepreneur
Excellent point, Leslie. I understand what you're saying now. What we need to be sure is somewhere in our preamble—if that's the right word—the introductory sections that we say, "Well, our understanding is based upon reading the report and receiving information from members of the PCAST."

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, good.

Paul Egerman – Software Entrepreneur
So having—

Leslie Harris – Center for Democracy & Technology – President & CEO
… explanation and discussions with—

Paul Egerman – Software Entrepreneur
Yes, so that we make sure that it's based on an expanded view of the report. Then I just want to make sure though that there's like an agreement that we're saying that based on that expanded view, not only is this transitional—in other words it's not rip and replace—but also it means that the work that's been done so far in stage one, what's sometimes called push transactions, that's foundational. That work does not need to be replaced.

Stan Huff – Intermountain Healthcare – Chief Medical Informatics Officer
Yes, I agree with that. I mean, that was I think one of the important things I learned from the hearing was that idea that no, we weren't saying all that existed in the new world is this new paradigm. They were assuming that this was the paradigm that would exist and augment and complement. It might replace some parts of what we have now, eventually, but it was clear that it would evolve and be in parallel and complement what we have now. That was vastly reassuring, I would assert as well.

Carl Gunter – University of Illinois – Professor
One of the things that I got out of this was that it was scenario driven. They work a lot from—here's what the end product would look like. Then they're sketchy about some of the steps that would be taken to get there and that the maturing that we're seeing as we do the discussions and we get more people involved include people stepping up with pieces of the puzzle saying this is already done. So that the fact that those were not mentioned in the report, maybe because they didn't know or maybe because they didn't have time to say everything, but it doesn't necessarily matter. The point is that some of the pieces that fill in towards the objectives that the report is putting forward exist, others not so much.

Paul Egerman – Software Entrepreneur
Carl, those are great comments about how the report works. One of the challenges we have is that we have this 100-page report that we within the industry read and many of us within the industry misunderstand what it says, but that report is also being read by various policy people in the White House and in HHS. So, one of our jobs is to do our best to explain it to people that this is—

Stephen Ondra – NeHC – Senior Policy Advisor
I think there's nothing that would prevent clarifying, as has been stated, what the reports intent is as has come out of the hearings without critiquing the report. So, I don't think those two things are exclusionary. In fact, the real purpose of those hearings is to flesh out what is the intent and provide clarity without critiquing.

Paul Egerman – Software Entrepreneur
Excellent comment, very helpful. Getting back to the place where—I want to make sure that this consensus about what—where the clarity is. To me, the thing that I try to write in the draft and maybe I didn't articulate it well is to say that part of the clarity that we're trying to provide is that these stage one transactions that have already been done, that they're foundational and that's not worth … be replaced. So, my question is based on where this workgroup is, where everybody on this call is, are you comfortable with that statement?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences

Yes.

William Stead – Vanderbilt – Chief Strategy and Information Officer
I think it would be helpful if people really looked at the four bullets under Section A that Paul's referring to because they have attempted to say what we're all saying on this call in the sort of bullets. The one he's referring to is the third bullet in that sequence.

Hunt Blair – OVHA – Deputy Director
I agree with the conversation that we've been having. I think that to—from my perspective, the critically important overarching theme of the PCAST Report … isn't articulated in the report and yet was expressed very clearly by Craig and Christine is the realignment—the thing that's animating this at a base level is the desire to realign financial incentives from volume to value driven payment. That transformation isn't going to happen absent sufficiently sophisticated and reliable methods for measuring quality and value … outcomes. That kind of overarching framework then says if we're operating under that, which I think they said pretty clearly that was sort of the assignment from the president, then all of this can be seen more as evolutionary rather than revolutionary. I mean, I think a suggestion that I would make is that throughout the document that's been circulated, instead of calling it the new exchange architecture, I think it would be more helpful to refer to is as an evolutionary exchange architecture.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
I'm calling in from vacation and this is the first chance I've had to get online for a few days, so I may not be looking at the right report right now. I think that new and evolutionary belong together as opposed to one being a replacement for the other. Because my interpretation after our hearings was that the intention with the universal exchange language and part of the … with the data access service is to create a, if you will, forum that allows exchange and interoperability independent of specific definitions of semantics. I don't think that we can get to measuring quality at any level even the sort of indicator … level that we have right now in the meaningful use regulations without a specific set of semantics. But the PCAST Report is far more broadly visioned towards the evolution of semantics over time and the usefulness of data that is not described exactly and semantically and inclusive of the work that's being done now.

Paul Egerman – Software Entrepreneur
Okay, so those are extremely helpful comments. The sense I have is that there's consensus among the workgroup that—among these major points, that the report was really directional. It was not intended to be specific. That it's evolutionary. That it's describing sort of an end state that's an interesting end state, but it's evolutionary. It's not rip and replace. Those are things that we try to articulate in Section A of this draft document that I circulated. As I listen to this, it's like I'm not sure that we wrote it well and perhaps we didn't write it with that adequate amount of emphasis on specific topics.

One of the things that I also put in Section A that people haven't mentioned yet is that I didn't see the PCAST Report as being inconsistent with ONC's strategic framework. In other words, although the strategic framework document, I have to confess, I was on the workgroup that helped to create that and as businessman, when I got on the workgroup, I thought a strategic framework would say, "This is what you do in year one. This is what you do in year two," and I got this little lecture, "No, that's not what was meant by this document that's actually required by Congress. It's more like a statement of very broad principles, sort of says like privacy is critically important and population health is important." So, it has principles. So, when I say it's not in—PCAST's vision is consistent with the strategic framework, there's a lot of latitude there in what the framework says, but the main concept is sort of like evolutionary. That this is not rip and replace.

So, we've got these principles—these concepts laid out in our Section A. What I'd like to suggest is, is it okay with people, for both Section A and B, is that you read through it. To the extent that you can tell us how better to express what we wrote because maybe the emphasis is wrong, I very much appreciate Leslie's comments that we also have to make it clear that our input—our source of information is not just the report. It's other information directly from the members of PCAST. To the extent that you have those comments, what I'm asking you to do is sort of like send Bill and I like a track changes or an e-mail or something telling us how we need to fix this up because the sense I have is I'm not hearing any disagreement with what's written. It's perhaps we need to articulate it a little better or write it better.

Carl Gunter – University of Illinois – Professor
I had little articulation questions. Like I don't remember hearing much about security at the meeting, although privacy was discussed a lot. So, some wordsmithing might be a good idea, but I wondered on items one and two, item one it says that it's not well understood and item two says there's an absence of consensus. I find it hard to dispute either of those things, but they seem closely related to one another as if they're really part of the same thing. One thing that occurred to me at the meeting was that the PCAST Committee, the people who wrote the report, had a great deal of technical expertise brought to bear on the writing of the report—experts in information technology. In our audience, we had experts who mentioned things like they had built similar things to the DEAS and how long it took and what they were doing with that. I don't know if we've really brought to bear this kind of level of technical analysis to try to sort out some of these issues. A lot of the discussion has been a bit high level and more policy oriented and kind of digging down to the technical guts of this as something that would help illuminate a few of these points.

Paul Egerman – Software Entrepreneur
Great comments, Carl. Actually, that's one of the things that in a few minutes we're going to talk about doing is creating perhaps the task group to do exactly what you're suggesting. That that would be helpful.

Carl Gunter – University of Illinois – Professor
Yes, like a group of technical people to talk about this stuff to see how much they think is feasible and exactly how it would be done.

Paul Egerman – Software Entrepreneur
I also want to respond to your comment about the two bullets … not well understood and absence of consensus—yes, actually when we wrote it down, I wasn't sure if that was two separate things or one. So, that's a great comment. You're also 100% right, there's a difference between privacy and security. The issue is for some reason … people don't understand the distinction, so we tend to like make it one thing, but they aren't one thing. They're different.

Carl Gunter – University of Illinois – Professor
Yes, to illustrate on that one, there was a lot of discussion on privacy, but there were some security issues with the DEAS that might merit discussion. So, we just hadn't gotten to that topic.

Paul Egerman – Software Entrepreneur
Great comments. Again, if you think about the draft document we sent out, it has four sections. Section A was like comments about—at a very high level—about the report. Section B was comments at a fairly high level about the hearing and then we refer to an appendix where we're going to have more detail. The next section is where we hope to spend a lot of time today. It's sort of like a discussion—well what should ONC do? What are ONC's next steps? So, hopefully we can get to some of Carl's comments about doing some of the technical analysis. There is a Section D that talks about the sort of impact on ONC in stage two's—ONC's programs for stage two, so the immediate impact and think about we—

I'm trying to give you a sense of how Bill and I would like to try to structure our meetings. What we will hope to do in today's meeting is try to get through some of these Section C issues to see if we can get organized on some of these technical issues, understand at least at a high level what the ONC steps should be. We have a meeting on March 17th, two weeks from now. We're hopeful we could perhaps finish up some of what we call Section C, do the Section D impact on policies. Then we scheduled another meeting at the end of the March—I think it's on March 30th—basically to either look at the report as a whole or to finish up whatever we didn't get done in these two meetings. But the concept is to make sure we're on the same pages by the end of March to create our draft response, which is not a response to PCAST. It's a response to our workgroup charge. Then that becomes our final report that we submit on April 13th to the Policy Committee. So, those are the steps that we're going through.

I don't know if that made any sense to people … have any questions about the—

Tim Elwell – Misys Open Source Solutions – Vice President
That meeting on the 31st is the three hour call that's scheduled as opposed to a face-to-face meeting. Is that right?

Paul Egerman – Software Entrepreneur
Yes, I think it's the 30th.

Judy Sparrow – Office of the National Coordinator – Executive Director
Yes, it's the 30th.

Tim Elwell – Misys Open Source Solutions – Vice President
It's the 30th, right. Okay, I just wonder if that's enough time. I can't imagine a … meeting going more than three hours, but it seems like if we're at a really … point in the process, there might need to be, I don't know, if not face-to-face, through calls or something.

Paul Egerman – Software Entrepreneur
Well, there could be. What we will be doing also is trying to see if we can create some task groups and have some phone calls and meetings with smaller groups of people in the interim to try to get some of the detail work done.

Tim Elwell – Misys Open Source Solutions – Vice President
I just want to state something that's been bothering me a little bit. Perhaps it's not founded, but when I look at Section B and we state specifically that it's not well understood speaking about the report, my only concern about stating it that way—and I'll try to make some recommendations around wording—is that it may then be dismissive of the testimony that's been received. Whether that be …day and a half, but also previously, all of the other stuff that had been sent in during the public comment. I mean, you had made a statement early on in your comments today that it wasn't well absorbed and in fact even represent … talking about the HIMSS Conference.

I was at the HIMSS Conference too and there's a million things going on, of course. I just think about when this report came in December against the backdrop of the preparation for the show that begins the day after HIMSS ends and the preparation for that on top of the 5010 transition, ICD-10, meaningful use, ACO, patient-centered medical home, all the stuff that's happening. When I spoke to folks directly about this report at HIMSS, the comment that was kind of a rolling of the eyes—and not because they didn't understand it, but simply—and I think we did hear this during the day and half—is that there just is so much going on right now that it just was overload. So, I'm just cautious in being able to definitively say

that it was, in our opinion, not well understood versus everything else that's going on during the same time period.

Paul Egerman – Software Entrepreneur
Sure. Excellent comments, Tim. We try to capture everything else before—

Tim Elwell – Misys Open Source Solutions – Vice President
I understand that. I just wanted to make sure that—

Paul Egerman – Software Entrepreneur
I've heard some people describe that fourth bullet—that our industry, some of the people in the industry are almost at a breaking point, which I thought was a little extreme, but there is a lot of stress. But, your first point is excellent. In saying that it was not well understood, the last thing I would want to do would be … to diminish the efforts of the people who responded. So, whatever way you can help us recraft that to be clear about that with the wording that make sense.

Leslie Harris – Center for Democracy & Technology – President & CEO
Since we wandered back into B, I just realized—I had had something I was going to offer just as an edit, but I realized it's a framing—sort of also frames sort of like what we think the tasks are going forward on privacy. The PCAST Report really doesn't provide for granular privacy preferences. It's not a policy document. It offers a technical approach for honoring patient's privacy preferences. I think it's an important distinction because one suggest that some—how they were engaged in making a policy recommendation, which they have disavowed, or it suggests that granular privacy support is a current policy and neither of those things are true. They've offered a technical approach for a particular piece of privacy. So, just in terms of stating what that report says and doesn't say, I mean, I'm glad to send you the edits, but I think we have to keep that in mind when we think about the going forward tasks.

Paul Egerman – Software Entrepreneur
Excellent observation, Leslie. I appreciate it. Were you trying to say something, Bill?

William Stead – Vanderbilt – Chief Strategy and Information Officer
Yes. I was still thinking about how we could get at the fact that the concepts in this report are in fact different from many of the common approaches used in this industry. Therefore, it is simply challenging to grasp. We tried to say that, but maybe we need to flip—maybe that's really what's said instead of that it's not understood because we're not trying to say people aren't making effort or that their comments are not valid. We're just saying these are not—when people read this report and they hear it in the light of the current industry, they're probably not actually connecting with what's being said. That is a common challenge, just with how human brains are wired. When we hear something that's actually quite different from our experience, but we actually map it without knowing it to our experience. So, that's the challenge here and this is a report largely, I think, produced by people with a level of information about computer science, etc. that is actually not very common in the healthcare IT industry.

Paul Egerman – Software Entrepreneur
Excellent point, Bill, because it basically—the report requires what I call an intellectual leap. You have to read it and envision something different than exists right now. So, that is difficult to do. I think these are great comments, so hopefully Leslie and Bill and Tim can help us redraft this Section B so it captures these thoughts better. As I listen to this—I mean, I think about it, I think about Tim's comment about HIMSS. I mean, one would not expect any industry, let alone the healthcare industry, that you could just issue like a 100-page report and two months later people will have read it and said, "Yes, I understand

this and I've absorbed this and now let's move forward with this new direction." There's got to be some intermediate steps to do that, so it's not surprising that we are what we are.

What I'd like to do in this discussion—this is extremely helpful and again, if people can help us draft Sections A and B better, that would be terrific—is I want to turn to Section C, the ONC next steps, and that gives us then a platform to address Carl's comments about some of the technical work. In the next steps, we're trying to figure out what should be the next steps. It was very interesting, when I read the report, the way I read the report, I thought it said that it's part of this call to urgency. I thought the report said, "Well, yes, you've got to implement this concept in stage two." When I talked to Bill about it, he said no, that's not his reading of the report, although certainly one of the PCAST members seemed to be advocating for what he called an end-to-end implementation. I sort of picked up his phrasing, I don't know if it's the right way to phrase it, but when I put out my strawman, I wrote this.

I'm asking if people agree—I probably shouldn't have written it in the negative, but I did. So, the workgroup concludes that it is not feasible to include a complete end-to-end implementation of the new exchange architecture—I understand people may want to title that differently, but—the new exchange architecture, in meaningful use stage two. Now, when I explain what I mean by end-to-end, at least when I wrote this, to me end-to-end meant the complete implementation, sort of like all of the concepts. So, you'd have a universal exchange language. You would have some sort of national data element, record locator service. You would have a privacy policy. You would have the right security capabilities. You may not do it for all data elements, but you would do complete end-to-end for something. So, it was suggested that would occur for medications in stage two.

So, I listed some factors as to why I thought—and I've heard this from a few other people—that it was just not feasible to do that in stage two. But, my question is do people agree or maybe somebody thinks—does somebody think it is feasible to do in stage two?

Leslie Harris – Center for Democracy & Technology – President & CEO
I don't think it's feasible to do in stage two, but I want to understand whether when saying a complete end-to-end means that—… we say that we might be doing pilots, that we're talking end-to-end meaning what you mean by end-to-end. Do you mean pilots that cover the country, standing up … search for the entire country for a single data element? I may have a different view of what I think about is feasible or should happen in stage two depending on that.

Carl Gunter – University of Illinois – Professor
I think the idea as I took it is end-to-end here means that we're not talking about say an infrastructure piece that would be needed as part of the complete solution, but something that goes from an actual use up through the technology to make that use work. So there's something you could actually see the benefit of it as opposed to a pilot that might say work on a piece of the infrastructure would be important, but where it wouldn't demonstrate an end-to-end benefit.

Paul Egerman – Software Entrepreneur
Yes, just to clear in the way I tried—maybe I'll … phrase this is this question does not relate to pilots. This question relates to stage two of meaningful use, which … national deployment.

Leslie Harris – Center for Democracy & Technology – President & CEO
Yes, I understand.

Paul Egerman – Software Entrepreneur

So, end-to-end would mean to me that at least for something and you don't have to do it for all of … at least as something you had all components or at least as a concept operational, which means an exchange language, some record lookup capability, privacy and security. Those would be all of the components.

Leslie Harris – Center for Democracy & Technology – President & CEO
Well, there's a bigger policy structure that has to go around this. It isn't just privacy and security.

Paul Egerman – Software Entrepreneur
I understand. Basically, that's what I meant by end-to-end and if I heard your comment Leslie, you were saying yes, you agree it's not feasible—

Leslie Harris – Center for Democracy & Technology – President & CEO
Yes. I know, I realize I'm saying yes and then stating the negative.

Paul Egerman – Software Entrepreneur
Yes, that's my screw up, I apologize for that.

Leslie Harris – Center for Democracy & Technology – President & CEO
I think it's not … to understand what our limiting language meant, so I do now.

Paul Egerman – Software Entrepreneur
Wes, you were trying to get in here.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
Yes, the main comment I was going to make was essentially the one that you made, which is that the phrase "forced meaningful use stage two" implies that all certified products would have to be certified to support something of this nature. And presumably that at least that would be one way to qualify for some of the requirements for meaningful use that are imposed operationally on providers. When you spell it out like that, it becomes pretty obvious the difficulties in getting it done. Forget about the regulatory ….

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I certainly agree with this, that it's not feasible for stage two, but I think the way this is worded almost implies that first of all that we know what a complete end-to-end implementation is. It's been pointed out already that the details—we understand—and we agree with the high level content, but not the details. Secondly, it seems to me to imply that we agree that it's a good thing for—at someday have a complete end-to-end implementation of everything in the report. I don't think that's true.

Paul Egerman – Software Entrepreneur
That's interesting, Dixie, although that's sort of like a different topic as to whether or not we should do it. This just says is it feasible to do in stage two.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Well, I think it should—just stating it without any doubt that it's—maybe we could word it better or something like that so that we're not saying that it's a smart thing if it were feasible.

William Stead – Vanderbilt – Chief Strategy and Information Officer
I really think we need to be careful about the idea of framing our response as alternatives to ONC. I don't believe we've been asked to say whether we think the report is good or bad. I think what we're actually

asked to do is provide realistic alternatives to the Policy and Standards Committee that they can pick from as they advise ONC.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
On how to implement it.

William Stead – Vanderbilt – Chief Strategy and Information Officer
On how to respond to it.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
That's what I'm saying. I think part of our response should be that we don't buy it wholeheartedly end-to-end complete.

Paul Egerman – Software Entrepreneur
That's helpful, but rather than have that debate, I think we just say—if I heard you right Dixie, you agree with what it says here though. You may want to write it differently, but you agree with—

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, I agree with what it says. I think I've heard from others that they agree that we don't want to swallow the whole thing end-to-end completely ….

Paul Egerman – Software Entrepreneur
I know Stan was trying to get in here. Stan, did you want to say something?

Stan Huff – Intermountain Healthcare – Chief Medical Informatics Officer
Yes, I agree that it's not possible and I would just add as some details—whether we want to put them in or not, I'm not sure, but—the reason that it's not possible is that what it is isn't known. We don't have a design. We don't have an implementable design. We don't have a specification of what it is and we don't have proof that it would work or that it would scale or that it would be …. So, to make it a part of the formal certification of systems is basically impossible until other work gets done.

Carl Gunter – University of Illinois – Professor
I have a question. Could you lay out what it would take to be fast enough to do stage two? I guess everybody is familiar with exactly what kind of schedule that entails and maybe I'm not. What are we talking about? It would have to be done by next month? It would have to be done by 2012? What do you …?

Paul Egerman – Software Entrepreneur
One would think that that would be an easy question to answer. I'll do my best and then somebody can—

Carl Gunter – University of Illinois – Professor
There seems to be a consensus it's not possible, but I haven't heard a statement of exactly ….

Paul Egerman – Software Entrepreneur
Let's see if I get this right. Stage two eligibility begins January 1, 2013. The regulations though, at minimum, for that to occur have to be published for meaningful use in the form of something called an NPRM probably by the end of this calendar year, by the end of 2011 so that people can have some time to respond to the regulations and actually do the work. So, if you have to actually publish the regulations by the end—say by December—of 2011—

Leslie Harris – Center for Democracy & Technology – President & CEO
But that would be for post-regulation.

Paul Egerman – Software Entrepreneur
That's for post—

Leslie Harris – Center for Democracy & Technology – President & CEO
And you have to get comments.

Paul Egerman – Software Entrepreneur
Then you have to get comments, so then you—

Leslie Harris – Center for Democracy & Technology – President & CEO
Put out final.

Paul Egerman – Software Entrepreneur
Yes, so your final regulations, if you're lucky, get done like April, May, June of 2012, which is also cutting it real close. But, if you did your NPRM at the end of December, the people who are writing the regulations need time to write them and the people who are doing all the programing for the systems and creating certification criteria and stuff like that need time to write up all of that stuff. So, people say that moves it all up to right around say June or July of 2011. June or July of 2011, well there's three or four months from now, you'd have to have a pretty firm idea of what this thing would like, this thing being the end-to-end. So, that's a very rough—people might quibble a few months. I don't know if people want to respond if I got—

Leslie Harris – Center for Democracy & Technology – President & CEO
No, we don't yet have a policy infrastructure around pull technology as compared to push. We've just gotten through push. We have to—

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I think we should capture in this report both what Leslie said and what Stan said. That we don't have complete policy nor specifications for implementation.

Jodi Daniel – ONC – Director Office of Policy & Research
I just wanted to jump in. Paul, you did an excellent job. We are looking for input from the Policy and Standards Committees this summer so that we can get a NPRM drafted. If we don't have something in our notice of proposed rulemaking, then we can't go final with it. So, if we don't have policies laid out or standards laid out to put in that proposed rule, then even though we're still going to do a comment, … come up with some brilliant comment that we never talked at all about in the rules, we can't finalize it. So, we are talking a few months of time for getting the input the we would need to get them into stage two.

Paul Egerman – Software Entrepreneur
Yes, we have a timeframe, if I got it right Jodi, two or three months where we'd have to get the thing figured out. Is that—?

Jodi Daniel – ONC – Director Office of Policy & Research
Yes, probably three. We'll give you ….

Carl Gunter – University of Illinois – Professor

What kind scope do these things need to have? Can it be an instruction in meaningful use say to state immunization registries or does it have to be for every kind of provider? Is it something that can't be limited?

Jodi Daniel – ONC – Director Office of Policy & Research
Yes, I'm not sure I understand the question exactly, but it has to be—

Carl Gunter – University of Illinois – Professor
An end-to-end solution may not involve every entity in the system. So, if there's a meaningful use rule, I was wondering if it has to apply to absolutely everyone or whether there's a subset of parties that might be able to handle it that would be available.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
I'd like to put my comment in when I get a chance.

Jodi Daniel – ONC – Director Office of Policy & Research
We basically have two categories—eligible professionals and eligible hospitals. Conceivably—and this will be a CMS question, but—they could limit which providers that are eligible to have to comply with a particular requirement it would make it much more difficult—again, I'm speaking for them. This is not official—it probably would make it a lot more difficult for them to implement if they had different rules for different providers within of eligible …, but that was something that may be feasible. As sort of a level of specificity, you can have measures that are very specific or measures that are more general as long as they are something that CMS can identify that an entity has met the measure. So, I think there's some flexibility in what the measures are and the level of specificity, but it has to be something that they can then implement programmatically and know if somebody ….

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
Paul, I'd just like to recap some things I've heard on the call. We are dealing with a report that is visionary and difficult to grasp in terms of existing technologies. We're dealing with a report that gives some evidence of—has some evidence of—some of these technologies in other industries, but in healthcare. We don't have a policy basis for implementing the proposed—it proposes a method for supporting policy, but it does not propose a policy. We don't have a policy. We have to create standards that can be cited in a regulation. The decision has to be made to cite them or not sometime this summer or this fall. There is no start on those. We have committed as a group to the entire—certainly, the Standards Committee and I believe the Policy Committee has committed to we try to avoid standardizing things that haven't been done yet. Whatever is written into the NPRM becomes the outer limit of what can go into the final regulation. After the final regulation is implemented, it has to be in place and operational for certification or assertion of meaningful use as of October of 2012. Summing all that up, I don't think it's hard to believe that it's—hard to make a statement that it's not feasible.

Leslie Harris – Center for Democracy & Technology – President & CEO
That was a good summary, Wes, and I think it may be useful to say it in the report.

Paul Egerman – Software Entrepreneur
Excellent summary and maybe you can help us, Wes, as we try to capture those concepts, but as we talk about this, I want to make sure that—I perhaps made a mistake by writing this as I did in the negative. Is there any member of the workgroup who believes that it could be done? I … make sure I try to somehow give a chance if somebody thinks so that they have a chance to say so.

Carl Gunter – University of Illinois – Professor

Wes' comments satisfy what I was looking for.

Paul Egerman – Software Entrepreneur
Okay, so that's helpful. Now, when I presented, I did a brief presentation in front of the Policy Committee yesterday and Jodi and Doug, if you're on the call, maybe you can help me if I describe this wrong, but Dr. Blumenthal, David Blumenthal, made a comment or asked a question about this as it relates to stage two. He sort of said, "Well, some Policy people are hearing that if we don't do this in stage two—" I can't remember exactly what he said. Either that we'll be spending money in a direction that will sort of like be not useful, be wasted or we will be missing an opportunity for significant innovation that would otherwise occur. Did I say that wrong?

Doug Fridsma – ONC – Acting Director, Office of Standards & Interoperability
No, I think you captured the essence. I think he might have maybe put it even a bit more strongly, which is to say are there things that we need to do as part of stage two meaningful use that if we don't do them, it sets us down a path that we can't kind of get back from or that we're committed to. Are there things that we either need to do or not do that will potentially set into stone or cast into concrete the path forward? I think it goes back to some of the discussions that we've had on this group about are there things that we should do, are there things that we shouldn't do that are going to box us in? Are there going to lost opportunities? Are there things that we need to do now that if we don't do them now we will regret them later, sort of this notion of a path of least regret?

Carl Gunter – University of Illinois – Professor
I haven't seen that necessarily for the meaningful use stage two, but I worry about the ONC state programs. That what's happening is they were encouraging people to get buy-in for a non-integrated system and that will possibly run counter to the recommendations of the proposal.

Paul Egerman – Software Entrepreneur
Yes, those are great comments. Here's what I want to do with that—this is helpful because what's very interesting in this discussion was when Bill and I were talking about how we were going to frame the discussion, there was like two ways to do this. One way was to first talk about stage two of meaningful use, which is sort of what Doug's questions relate to and also what Carl's comment relates to. Another way of doing it that Bill suggested was let's think about the total context of how we're going to respond— how ONC should be responding to this report because that then will also determine what we want to do in stage two.

So, what I'd like to do is say these are good concepts, but before we dive into stage two, let's think through—okay, now that we've made this statement of what stage two won't be doing, let's think ahead as to what we want to accomplish for like stage three and beyond. Then, let's back up to stage two and say, okay, what does that mean about stage two. Does that make sense?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
That's good.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
Yes, I think that we have to consider an issue that I thought was well articulated early in the call, which is that we have to make—I think you might have used the term leap of faith or … vision or something. That creates—without examples of what might implement the new vision, it's a little bit hard to work backwards. I would argue that we could look at the concepts of metadata in UEL and … data and at least try to … that the data necessary—the data … metadata kind of based on who was looking at it when the metadata describes a patient or something like that. But, we could look at the standards for phase two

and if there's a missing data element or some such that we would regret not having put into stage two transactions, we could consider something as small as that … it would still be controversial. I think there are ways we could look at—even absent of full understanding or exemplar image of what would implement the vision of the PCAST Report. We could certainly do our best to apply the principle of least regret in a small way in stage two and a bigger way in stage three.

Paul Egerman – Software Entrepreneur
Those are excellent comments and sort of a great segue because maybe the next step is for Bill to start talking about pilots and how we might organize ourselves around pilot projects.

William Stead – Vanderbilt – Chief Strategy and Information Officer
I'm taking that as a segue?

Paul Egerman – Software Entrepreneur
Yes.

William Stead – Vanderbilt – Chief Strategy and Information Officer
Let me sort of tie together some of the dots from this conversation with this next block, which we had sort of outlined about a page into Section C. In essence, as people have said, we are talking about something that is new, yet it doesn't replace what we have or what we're trying to do with stage one. It sits beside it, tackles different kind of information problems at different scales from what our current, if you will, push transaction process and infrastructure does. So, that's one framing comment. A second framing comment just plays back to what we've said, which is that PCAST provides an architectural direction, but it does not provide a specific technical implementation approach. You can envision many things that—by approach, you could see many different UELs, many different approaches to metadata, many different approaches to index and search.

So, what actually needs to be done first is to define, identify one or more alternative approaches. We could in fact take the technical detail in PCAST as one alternative implementation approach because that's—it's an example. It could be taken as one alternative implementation approach. We can also spell out others. The challenge is that it will probably not be successful if we try to tackle one part of an implementation approach such as say the UEL without tackling it within some high level understanding of the other component in that implementation approach because the components need to be able to work together. So, your decisions about how you do index and search, what's actually in different pieces of it, will in fact affect your approach to the metadata in the UEL and to how things relate to various … systems.

So, we believe what we have to do is identify one or more—I presume we would want to identify two or three—alternative implementation approaches that we could conceive achieving the direction of PCAST. Then what we would want to do is say okay, within this approach, what does the UEL look like and what does the metadata look like and what does whatever the DEAS is look like, etc. If we did a high level identification of such alternatives because this working group cannot between now and April 13th do the detailed specification of the implementation approach that PCAST did not do. All we can do is by providing two or three alternative implementations and how each of those implementations would change how you looked at the different components, we can show that—one of the alternatives ONC could do would be to pursue a process for defining one or more approaches or getting an agreement on one or more approaches.

If we were able to do that, we could then construct test beds for each of the approaches and those test beds wouldn't need to be—to come back to Leslie's question—end-to-end in a national sense. What they

would actually need to be is to test whether the components interacted in a way that could work and could scale.

Paul Egerman – Software Entrepreneur
Yes, I didn't mean to interrupt you, Bill. When you say we could construct test beds, I think you meant to say that ONC—

William Stead – Vanderbilt – Chief Strategy and Information Officer
ONC could—

Paul Egerman – Software Entrepreneur
—… establish pilot projects that would be test …. It's not like our workgroup would be doing it.

Jodi Daniel – ONC – Director Office of Policy & Research
Can I … of what you're saying Bill? So, with the concept of the path of least regret and identifying any lost opportunities that we want to make sure we do sooner rather than later perhaps, how does that fit in with what you're suggesting? It sounds like what you're suggesting is to come up with sort of the bottom-up approach, if I'm understanding correctly.

William Stead – Vanderbilt – Chief Strategy and Information Officer
No, really not. I don't know what we were calling the adoption alternatives because that's where the bottom-up—

Jodi Daniel – ONC – Director Office of Policy & Research
Okay.

William Stead – Vanderbilt – Chief Strategy and Information Officer
No, what I'm suggesting—though I guess it could be top-up down or bottom-up—what I'm suggesting is that the first step for anybody doing something that's going to achieve the direction of PCAST is actually to say this is a possible way you could implement it. Then, I'm going to be doing whatever I'm doing within that context. There could be—I guess a bottom-up approach meant that there could 100 such things or top-down might be that we would start with two or three and narrow ourselves down to one as we went through pilot projects.

Paul Egerman – Software Entrepreneur
I don't think you're talking about bottom-up or top-down. That's not the right terminology. I think you're just saying well, what is our concept as to how the UEL will work and what do we mean when we talk about how atomic data elements are going to be and just can we build on stuff that we already have. Are we doing new standards and some of that material? Is that correct or is that not correct?

William Stead – Vanderbilt – Chief Strategy and Information Officer
I believe it's correct. I guess, given what I've been—and this I guess is my opinion—given what I've been told about the timeline of what it would take to get something engaged in the certification process to me says we don't really have a path of regret problem. In essence, the thing that saves us from a path of regret is the fact that this thing can sit side-by-side with what we have and what we're doing. It would only be a path of regret if it would have to stop what we're doing. So that's a key branch point in our thinking.

Hunt Blair – OVHA – Deputy Director

I agree, absolutely. I mean, I think that's a point that I was trying to get to earlier when saying that I think this is an evolutionary rather than new architecture that we should be framing it … in those terms.

William Stead – Vanderbilt – Chief Strategy and Information Officer
I think we may be using words differently because I do believe this is in fact a new architecture. I believe it sits beside the current architecture and I believe the current architecture will still be necessary.

Hunt Blair – OVHA – Deputy Director
That's a really good clarification then. I think this harkens back to a discussion that we had a couple of calls ago about the idea of the—I'll use this word because it's one that's … to mind, but—the evolution of an ultra large scale system. We need to have what we're doing now ... underneath what we're building toward and that's the sense in which I meant it's evolutionary. I do agree that there's a—I think the fundamental revolution about all this is it's not necessarily or it should not rip and replace a technology, but it could well be rip and replace of paradigm for the end point or at least the future state of information exchange architecture.

Carl Gunter – University of Illinois – Professor
I think Bill's suggestion is great that getting some reference models or at least detail designs out there so we can talk about different approaches with some concreteness is absolutely essential. An example here is the ULS discussion. Craig Mundie, I think it was pretty clear, does not have in mind doing it that way. I mean, that that was not what they're proposing. They're proposing a centralized solution with a single DEAS authority that runs the system was the kind of—what was proposed and several people proposed they knew how to do that. That they could build systems that are scalable to do that, as opposed to some highly decentralized weekly regulated thing that evolves over time, which is an alternative way of viewing the system. So, getting some of these design tradeoffs out where we can study them in more detail, I think, would be essential to get forward on this.

Paul Egerman – Software Entrepreneur
Yes, and if I'm understanding your previous comment, Carl, about doing some of the technical analysis, I think that's what Bill's talking about right now.

Carl Gunter – University of Illinois – Professor
Absolutely. I would add one thing to what Bill was saying, which is I think it would be very helpful to have a narrower use case than just build the PCAST Report. So, I was encouraged by some discussions of possible end-to-end things, even if they couldn't be done in time for meaningful use two, but something more specific that you would be aiming to do. Because the technical people—the problem will seem kind of broadly formed if you do it with the current PCAST Report without instantiating it with respect to something. So, if you don't narrow what you would be trying to show you could do, I think it might not be as useful as if we had something a little more focused.

John Halamka – Harvard Medical School – Chief Information Officer
I completely agree with that. I've done a fair number of experiments with several vendors in the last couple of months on data atomic approaches to information exchange and for example, if your requirement or use case is the immunization registry that we've talked about before, it turns out the data atomic approach works pretty well. If however your use case is complex clinical decision making, I can tell you—I can send you a screenshot of what happens when my record becomes data atomic—I'll tell you, probably impossible to use it for complex clinical decision …. Use case is absolutely key.

Doug Fridsma – ONC – Acting Director, Office of Standards & Interoperability

This is tremendous. I just want to respond to this notion of sort of passively … and things. Let me give you just sort of an example. I think that what's being discussed here I think is all consistent with kind of getting us on the right path, but for example, if we lack consistent standards and descriptions of services, but yet we need to be able to have say quality reporting across lots and lots of different people. The lack of standards will have a centralizing effect on the solutions that emerge in the sense that we don't know what's out there. You're just going to have to send us the information and we'll sort through it. So, even though it isn't something that necessarily eliminates the possibility later on of creating more—richer standards or sort of more discreet services and things like that, there will be a tendency to move in one direction or another based on what we do early on.

So, the issue there is what are the things that we would need to do that would get us closer to the end point without necessarily creating either a centralizing or a decentralizing or whatever—whatever is the path that we would like to achieve. Making sure that we don't create pressures given our timelines and things like that that will push us down a path that will be harder for us to change either without adding more time or without sort of making some fundamental architectural changes.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
I'd like to first of all say I know I strongly support the way Bill characterized a path forward. I wish at least we would stop saying rip and release and start saying replace and rip in the sense that the only real probability that we would ever change what we're doing now is to actually have an alternative running somehow at scale and figure on a five year or longer transition. I am a little leery of vendors who say, "We know how to do it. The solution is for everyone to use our software." The importance of anything we do is that we conceive of a solution that does not involve demanding that everyone buy some vendor's software. Not that the ideas expressed by the vendor aren't valuable to understand, but we have to put that filter on understanding it.

Finally, I think one of the things that provides good support for Bill's point of view is that the clarification that came out of the hearings was that their notion of atomic data was not about breaking data down into very fine elements the size of an atom or a molecule or whatever. But it was more about being able to deal with the data it is whether it's in a large block of text, finely described individual atoms or whatever and with a rather minimal amount of metadata associated with …. That tells us, as Bill pointed out, that if we in fact add that on the side, we would be able to use whatever level … we're using for whatever particular use case in the broad picture. I have the impression and I can't think of the specific words right now that the authors of the PCAST Report talked about meaningful use stages as an opportunity to push their ideas faster. To that extent, I'm not sure that we feel we're in a position to command through the meaningful use regulations use of a new solution yet, but the level of interest in and demand for interoperability that's being created by meaningful use, quality measurement in general and sort of the expectation creates a friendly environment for their vision.

Jodi Daniel – ONC – Director Office of Policy & Research
Can I ask a question? I'm hearing a very clear or some agreement at least on this pilot approach. I also heard some clear, at least, agreement on the issue of doing what PCAST suggests by 2013 as not being feasible. I guess my question is is there something that is feasible in stage two that could be done say parallel with pilot. Even if that end-to-end implementation of PCAST is not feasible for 2013, what are some of the things that may be feasible for 2013 that at least could be proposed as alternative?

Paul Egerman – Software Entrepreneur
Excellent question and we are going to get to answering that question. The sequence though that we wanted to do is first to have a sense of doing this sort of technical discussion that Bill is describing. The reason is relates to the comment Doug said is we want to take the path of least regret. We want to first

think through some of these technical issues because that will help determine what's the right things to be doing in stage two.

John Halamka – Harvard Medical School – Chief Information Officer
Paul, I unfortunately have to leave the call, but I am happy to volunteer for the Implementation Alternatives Concepts Taskforce and be as helpful as I can.

Paul Egerman – Software Entrepreneur
I appreciate that, John. Thank you very much. To add one other concept as it relates to Doug's comment about path of least regret, one of the things that I might suggest that this taskforce might do would be to sort of answer the question—well, what are the kinds of building blocks of standards and vocabularies or semantics that are needed for this PCAST vision? So, instead of looking at a path of least regret, if we answer that in the affirmative, that could also give us some guidance about what should be in stage two.

William Stead – Vanderbilt – Chief Strategy and Information Officer
This conversation I hope is showing people why we feel we need an Implementation Approaches Taskforce. As Paul and I went back and forth in putting together the brief draft letter we sent you, I think one of the things that I learned is that we need to know that we cannot do what PCAST did not do in basically the month or so less that we've got. Paul and I gained ground whenever we took it up one or two levels from the detail and in essence began to develop a framework that would let people sort of see the pieces of the problem. So, I think if a taskforce could be put together that could at very high levels specify one, two, three different implementation approaches so that people could grasp what we mean by an implementation approach and what we mean by the components and how our approach to the components would be different in the different implementation approaches.

I think if we could actually come up with those examples, we would do everybody a favor. Then, we may be able to see across those examples things that are in common to all of them that might be candidates for including on the list to answer Doug's question. I don't know, but I think our—that's at least the only idea I have about how we try to tackle this. I think our challenge for all of us that spend our day in the detail, which I presume that taskforce will be made up of, it's going to be very hard for us to actually get it at a high enough level to get it done in the time we have to get it done.

Paul Egerman – Software Entrepreneur
Good comments because I think Carl was saying—I think it was Carl who said it—earlier we need to constrain it a little bit. One of the constraints is the time. The time constraint I want to put on it is the work has to be done and we have to get like a report from the task group prior to our next meeting, which is March 17th, two weeks. So, the task group sort of has to meet probably—meet means over the phone—perhaps once or twice, come up with a report and report back to us on March 17th. That forces it at a high level, I think.

Carl Gunter – University of Illinois – Professor
Wow. That's an awfully tight time horizon.

Paul Egerman – Software Entrepreneur
Well, as I say, it forces it at a high level.

Carl Gunter – University of Illinois – Professor
I wonder if we can cut through things to some extent that way by—what we've been talking about is a bake-off, but I don't know if there's time on that schedule for a bake-off. It might be that what we need is

a proof of concept demonstration where a group of people just try to put together something that they intend to be an illustration because I don't—I mean it will be one of many possible alternatives, but it's better than having nothing.

Paul Egerman – Software Entrepreneur
Yes, and when you say bake-off—

Carl Gunter – University of Illinois – Professor
A bake-off would be you'd had say three alternative approaches and you'd place them next to one another and ask what the tradeoffs are.

Paul Egerman – Software Entrepreneur
Yes, I'm not looking to go that far. I'm looking to go as far as to say, "Here are two or three alternative approaches that seem to be reasonable approaches." The other thing I'm hopeful that you could also do would be to say at least at a high level, "These are the building blocks or at least the kinds of building blocks that are going to be needed." We are going to need—I don't know—more vocabularies, for example. I don't know if that's yes or no, but these would be the kinds of things that need to occur.

Doug Fridsma – ONC – Acting Director, Office of Standards & Interoperability
I think you're probably right that given the legislative mandates we have with regard to the rulemaking process, we don't probably have time to do the kind of bake-off that will—that Bill Stead sort of envisions for this. I think though, to Paul's point, one of the questions that I would have is that in the hypothetical or the envisioned kinds of bake-offs that you might propose or that you might think would be useful are there common building blocks across those. So that suppose you had four different approaches, are there fundamental things that all four approaches would share in common that regardless of who won the bake-off, we could start working on those building blocks now that would form the foundation of those eventual bake-offs. To me, that's sort of the notion of what are the things that we know we're going to have to do regardless of what happens. That's also different than sort of the converse of that is that if we do something and we sort of build our world around a certain approach, have we eliminated one of the potential bake-off approaches because we've focused on that?

William Stead – Vanderbilt – Chief Strategy and Information Officer
Doug, I believe we're saying the same thing. I would get rid of the bake-off word because I at least have never been intending that this working group would do that or even that that would happen in the near future. What I was trying to do was get one or two illustrative—we need more than one so that people can understand why a coordinated implementation approach is necessary to achieve the PCAST direction, whatever the coordinated approach is. If we can get a couple of illustrative examples at high level, then I believe we would have a starting point to answer the question you're asking for what's in common between them.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Bill, I have a question. It's not clear to me in the different comments whether we're talking about alternative approaches as you just said, different approaches, or whether we're talking about technical approaches.

William Stead – Vanderbilt – Chief Strategy and Information Officer
I'm not trying to talk about a technical approach at the level of is it a Web service. I'm trying to talk about what I think of as an architecture that would put some clarity around what would the elements, not the technical elements, but the functional elements, of the indexing and search be? What would be the nature of the granules because I agree with Wes' comments that they're not real, real small, but they are

in fact considerably smaller than many things that are done today. What would the minimum component of the UEL look like given the approaches direction on the two previous questions? So, you could see how the answers to those three things interact with one another. I think that's at least what I'm trying to imply by an implementation approach.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Does that also include an approach to implementation, like these components could be implemented by stage two or would it just be the overall concept?

William Stead – Vanderbilt – Chief Strategy and Information Officer
I would favor that the Implementation Approach Taskforce try to get out on the table the illustrative examples of—at least a couple—of implementation approaches.

Paul Egerman – Software Entrepreneur
Yes, we're going … Dixie in response to your question as we sort of like for now separate the issue. So, there's the implementation alternatives, which is sort of like a description of how it works and then there's going to be a separate discussion about the adoption sequence, what happens in stage two, what happens in stage three.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
Question – is this a Gedanken experiment thing, in essence?

Paul Egerman – Software Entrepreneur
Say again?

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
Is this an exercise in visualization that's done by writing material or is it actual something that would go to being implemented? I'm just trying to deal with the notion that it's not about technical specs. If you're going to implementation, there has to be some … used.

Carl Gunter – University of Illinois – Professor
I have a thought on this. I thought Wes had a pretty good argument that we're not going to get an end-to-end thing done in order to include anything in stage two. But if you do look at an implementation effort, you might get some ideas of something that would be a necessary component of any approach and you might be able to make some progress on that. So, I have a few thoughts about what kinds of things those might be, things I think … just any implementation would have them, but seeing an illustrative implementation might help to give an idea of what those things could be. So, you might actually conceivably get at least a component technology that's appreciated as critical.

Leslie Harris – Center for Democracy & Technology – President & CEO
I just want to clarify, we're suggesting that somehow that work is in the mandate of this advisory group and the taskforce would be a subgroup that would resolve this in the next—would be able to do this in the next month so that we would then, based on that, incorporate those—I'm going to call it …. Whether they're use cases or technological choices, I'm still a little fuzzy—into our recommendations back to PCAST?

Paul Egerman – Software Entrepreneur
Yes, again, my clarification. We're not making recommendations to PCAST, we're—

Leslie Harris – Center for Democracy & Technology – President & CEO

No, I just—

Paul Egerman – Software Entrepreneur
—doing a final report to the Policy Committee and Standards Committee.

Leslie Harris – Center for Democracy & Technology – President & CEO
I understand that.

Paul Egerman – Software Entrepreneur
But the … is this would help us sort of fill in, connect the dots as it were. To understand some of the technological implementation aspects of how one might implement PCAST and as a result, understand if there are common building blocks or common themes among those approaches. That information also then could help us and ONC make decisions about stage two. In other words, in the sense of the things that have to happen immediately to understand well, if there are some things that if you do them that will be positive as it … down an implementation path towards the concepts that are described in PCAST. Or are there some things that perhaps are counterproductive, which you would not want to do.

Leslie Harris – Center for Democracy & Technology – President & CEO
Okay, so we're doing this visioning not necessarily to say what you want to do in PCAST in stage two, but what we want to tell them not to do in the current sort of vision of the rollout because it will move us away from incorporating this kind of approach down the road?

Paul Egerman – Software Entrepreneur
I think we …the process because it would be helpful to ONC. We've got terrific technical people on this workgroup and we'd like them to help us really understand what this report means and how it would be implemented. So, I'm like dying to hear what Carl and John Halamka and Wes Rishel and Bill have to say about just how you deal with this business of atomic data elements, for example. What does it mean to have a minimal exchange language? Are there six different flavors of the DEAS that we can consider?

William Stead – Vanderbilt – Chief Strategy and Information Officer
Again to be clear, these would be illustrative approaches. There's no way, even with the wonderful talent in this group, that we actually can generate the right answer in a couple of weeks.

Leslie Harris – Center for Democracy & Technology – President & CEO
That certainly was my question.

William Stead – Vanderbilt – Chief Strategy and Information Officer
All we want to do is to generate illustrations of what a couple of implementation approaches would look like, A, and then B, having done that, see if we think common elements have emerged. If we could bring those two pieces of information back to this workgroup, it would help the workgroup decide what to recommend to ONC either in terms of specifics or in terms of a process to do this in much more detail.

Leslie Harris – Center for Democracy & Technology – President & CEO
Okay, I'm comfortable with the process in more detail. What I'm uncomfortable with is that we sort of do this highly technical analysis and sort of say, "Here's the four elements about—that we like or think are feasible." We don't have time to run those four things, nor necessarily should we. We're not the Privacy Committee. We're not the Standards Committee. Each one of these is going to raise its own set of policy questions that have to get answered. I don't think those are within our purview and so I'm not terribly comfortable if we sort of press our thumb on the scale in favor of any sort of one of these … unless the

Policy Committee sort of do their thing. That's where I get a little stuck because it's the tail wagging, the technology wagging the dog thing here that I just want to be really careful about.

William Stead – Vanderbilt – Chief Strategy and Information Officer
Those are good points. Our thought was, unless my memory has shorted out, that we would also have a Policy Task group.

Leslie Harris – Center for Democracy & Technology – President & CEO
I'm concerned about that. There are Policy Taskforce—the Policy Committee exist to do policy and sure there's a Privacy and Security Workgroup. So, not only do I think we're duplicating, we're kind of—

Paul Egerman – Software Entrepreneur
My intention is not to duplicate. I mean, first of all, as we put forward the alternatives, the intention is not to choose one. It's just to give illustrations. As it relates to the Policy Taskforce, I actually was going to suggest a Policy Taskforce, but it was not so much to define policy as simply to list the topics that would need to be addressed based on these concepts in the PCAST Report. For example, one of the things that seemed to come up frequently in the hearing was concerns about deidentified data. So, the Policy Taskforce would say, "That's a subject that needs to be addressed, deidentified data, and these are the subjects that need to be addressed with query response." So, I'm really looking for—

William Stead – Vanderbilt – Chief Strategy and Information Officer
Or the existence of a national system.

Paul Egerman – Software Entrepreneur
Or existence of a national system. What I'd be looking for, for a Policy Taskforce, would be to sort of think through what are the topics and how do you— What you want to do is you want to do—I think what you're suggesting Leslie—we want to make sure that technology isn't driving this. We want to like coordinate policy and technology together. The question is well how do you do that? So, I'd look for a taskforce to sort of tell us how to do that, what are the topics that need to be addressed at least in parallel or coordinated with any technical development. Does that sound right or is that not the—?

Leslie Harris – Center for Democracy & Technology – President & CEO
That sounds right, I'm just—knowing what the Privacy and Security Group has on its plate that have to get done, I'm just trying to—

Paul Egerman – Software Entrepreneur
Yes.

Leslie Harris – Center for Democracy & Technology – President & CEO
…we put on their agenda about this and whether we're sort of driving them in a direction before decisions have been made about that direction, but certainly, we should keep the highest level of sort of issue spotting … concerns of policy questions. Without it, sort of the Policy Committee has to do these following things. I'm sure we can fudge that part.

Paul Egerman – Software Entrepreneur
Yes, so that's what I'm looking for is the highest level—these are the topics that would need to be addressed in parallel or in coordination with any technical evaluation or pilot, whatever the right expressions are and—

Carl Gunter – University of Illinois – Professor

I have a question along these lines is how timid does our committee need to be? In other words, we're not supposed to suggest anything that's supposed to be better than anything else or is it giving a list of things to think about?

Paul Egerman – Software Entrepreneur
I'd respond forcefully that we could be as timid as we want to be, but—

Carl Gunter – University of Illinois – Professor
I kind of—

Paul Egerman – Software Entrepreneur
—I think if there's issues where there's a clear consensus on something, then there's no reason why we can't say so. So, if we look at things and we have a clear consensus that something's right or wrong, I think we can say so, but I also want to make sure we do what's in the charge. We've got to do what's in the charge. We've got to give ONC it's alternatives, but as we go through the alternatives, if there's something that clearly makes more sense than something else, if there's a clear policy issue that there seems like there's like complete consensus on, we should say so.

I don't know if that's responsive. My whole point is I'm not going to try to wait until I get that consensus before we issue our final report. It's sort of like, some … Bill and my job a little bit easier. We don't have to like argue through every single issue until we get a consensus.

Leslie Harris – Center for Democracy & Technology – President & CEO
Yes, I just don't see that it's our charge to come up with an answer to every policy issue.

Paul Egerman – Software Entrepreneur
Yes, so as it relates to the policy issues and Leslie comment, again, I look at like deidentification of data as a complicated issue.

M
But it's not—

Paul Egerman – Software Entrepreneur
… just say is that's an issue that one would address and I use that as an example, but any one of these issues are sometimes … like it's an exposed nerve. There's a lot of issues with the national approach accessibility. So, one could though write some top level discussion as to what those kinds of issues are from a privacy and security standpoint. I think that that's helpful guidance to ONC, unless people disagree. If you think it's not helpful, then we won't do it. I'm not just trying to—

Leslie Harris – Center for Democracy & Technology – President & CEO
I think I don't know until I see these use cases.

M
It sounds like you're saying you want to aim for a consensus on things if we have colored opinions, but we shouldn't shy away from having an opinion if we have a strong one that everybody agrees to.

Paul Egerman – Software Entrepreneur
Yes, I think that's right.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences

I think you're saying, with respect to Leslie, that the charge would be to identify the policy issues and not really recommend any particular policy.

Paul Egerman – Software Entrepreneur
Right. Do you think that's a reason—? Rightly or wrongly, I'm putting privacy and security together again, Dixie. So, let me ask you, is that the right thing for us to be doing in your opinion or should we not do that?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Is what—what I just said?

Paul Egerman – Software Entrepreneur
Well, there's two things. One is is it right to marry privacy and security together.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
No.

Paul Egerman – Software Entrepreneur
Okay, and the second question is is there value in putting together this sort of menu or topic list of privacy issues and a separate one on security issues. Is that valuable or—that's too simplistic, we don't need to do it anyway?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
No, I think that's a good approach. Just like Leslie said, I suspect there'll be more policy issues around privacy than security, but I do think that they need to be separated and the policy issues need to be identified.

Carl Gunter – University of Illinois – Professor
I was just thinking of the original PCAST Report. I mean, I would have been very disappointed if all the report consisted of was a list of issues to be considered. I think that one wants to add a little more value than that.

Mark Rothstein – University of Louisville – Chair of Law and Medicine
There's a whole chapter in the PCAST Report, Chapter 5, on privacy. If our mission is to review the PCAST Report and make recommendations or state our conclusions about the report, I think we would be remiss not to have at least some comparable discussion of the privacy issues.

Leslie Harris – Center for Democracy & Technology – President & CEO
I agree with that completely. There's two different conversations. One is what PCAST said and what our recommendation is about their recommendation. The other is whether when we play out two or three scenarios and we identify that there's a set of particular privacy issues that attach to the approach, whether we have to go off and solve those—whether we should within our charge—solve those privacy issues compared to just identify them or ….

Mark Rothstein – University of Louisville – Chair of Law and Medicine
We cannot do that.

Leslie Harris – Center for Democracy & Technology – President & CEO
Well, I know we can't. That's—

Paul Egerman – Software Entrepreneur
Yes, that's right. I think that we agree with that. So, let's do this one step at a time. Let's go back to Bill's suggestion of this Implementation Alternatives Taskforce. Is there enough understanding of what that group is going to be doing that people—? I mean, John Halamka volunteered to be on it, but is there enough understanding for people to understand it and want to participate in it that we could go ahead and see if we can get a few volunteers and get that thing cracking before the next meeting?

Carl Gunter – University of Illinois – Professor
I'd be pleased to participate. I think I understand the charge.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I would as well.

Stan Huff – Intermountain Healthcare – Chief Medical Informatics Officer
I would be very interested and I think I could add a little bit about models and how that might connect to those—the atomic nature of this data, that sort of stuff.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
I'm always ready to sign up for another group of phone calls. The thing is for us to this week—well, it's not going to be this week, right? You're not having a call this week?

Paul Egerman – Software Entrepreneur
Yes because there's only one day left in the week. We'll let somebody else figure that out for now. So, right now I've got Wes, Dixie, Carl, John, Bill, and Stan. Did I miss anybody?

Judy Sparrow – Office of the National Coordinator – Executive Director
Nope, got it.

Paul Egerman – Software Entrepreneur
Okay and if anybody else wants to be involved, they're welcome. Bill and I will take care of organizing it. Now, let's back to this policy issue. I'm confused on that issue as to what people are saying on the privacy side. On the privacy side, is it worthwhile to have a group and what is that group going to be doing? Is that group going to simply list topics? Is that group going to list topics and express opinions on it? What do we want to do with that?

Leslie Harris – Center for Democracy & Technology – President & CEO
It's useful for this body to say what, if anything, in the PCAST Report should become a path forward for ONC with respect to their privacy approach, the technical approach of tagging, where is that useful. Where it becomes confusing is not necessarily knowing exactly how any of this is going to be used without the use cases, right?

Paul Egerman – Software Entrepreneur
That's right.

Leslie Harris – Center for Democracy & Technology – President & CEO
I mean, tagging may make sense in some circumstances … the privacy questions may be different in a one big national search engine. I may have different views on other privacy questions depending what the criteria are for access. This is why there's sort of a policy conversation that we can't have now because it's …. If we're just commenting on the PCAST Report, then there's a question of what other circumstances we're tagging for privacy preference makes sense and we really have to have that

conversation, but in the context of what the policies are, not—and those policies are not consent driven right now except with respect to state law.

Paul Egerman – Software Entrepreneur
I don't understand what you're suggesting, Leslie. So, I'm asking should we set up a task group to help us identify like what are the right policies to address. Are you saying yes or no or are you suggesting an alternative?

Leslie Harris – Center for Democracy & Technology – President & CEO
I'm saying I'm not sure because the policies to address really depend on the implementation. I mean, some of the them are common or could be common and some of them may not be.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I would disagree. I would say the policy dictate the implementation.

Leslie Harris – Center for Democracy & Technology – President & CEO
… should, but we've already got the—

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
So I would say that the Implementation Workgroup should identify where policy is needed.

Mark Rothstein – University of Louisville – Chair of Law and Medicine
Let me give an example of something that—

Leslie Harris – Center for Democracy & Technology – President & CEO
I might just be misunderstanding here because—

Mark Rothstein – University of Louisville – Chair of Law and Medicine
Here's an example of an issue the implementation group might not consider that would be interesting for a policy group would be the report effectively suggests a lot of patient responsibility in this case with the tags and a lot of patient authority. How does that fit with other objectives of the healthcare system and also the capabilities of patients and doctors to step up to that kind of thing? What they're proposing is a lot of discretionary control for better or worse, and I think that that needs some thought as to whether that's a good idea or not. It's not that obvious.

Leslie Harris – Center for Democracy & Technology – President & CEO
I'm completely comfortable with that. It's like when I said anything that remotely sounded like a critique of the report, I've been told we're not supposed to critique the report. So, I'm more than prepared to critique and advise ONC on what elements of that make sense and what don't. I agree with Dixie that the implementation ought to be driven by policy, but that's why I'm kind of stuck here because we're going to strawman implementation—

Paul Egerman – Software Entrepreneur
I'm wondering if we could focus in on Mark's comment because one of the strawman for stage two involves patients gaining access to their records through a patient portal, but then actually downloading data using perhaps the tagged data elements, which they in turn then could upload into a PHR. It's a slightly different vision, I think, than what other people have been thinking about for a PHR and it has its own sort of privacy implications. So, is that an area that is worthwhile to have a separate discussion about?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I didn't mean to say—I think that there could be a separate taskforce to address policy. I think the Implementation Workgroup should identify needs for policy and see they line up.

Paul Egerman – Software Entrepreneur
So is it more an issue—you think it's a good idea, but you kind of want to wait until we're a little bit further down a path on implementation?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I don't think so. I think that you could start both tasks—

William Stead – Vanderbilt – Chief Strategy and Information Officer
Practically speaking, there's no good way for the Implementation Taskforce to do what it's supposed to do and also focus on figuring out the policy implication.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Right.

William Stead – Vanderbilt – Chief Strategy and Information Officer
A second point, which I think gets at one of the challenges is that what PCAST was actually trying to do was to suggest a technology direction that could in fact support any policy you wanted to implement.

Paul Egerman – Software Entrepreneur
Which is—

William Stead – Vanderbilt – Chief Strategy and Information Officer
Which may or may not—

Paul Egerman – Software Entrepreneur
Yes, is questionable.

William Stead – Vanderbilt – Chief Strategy and Information Officer
Certainly is—well, it may be questionable and certainly different. I believe what all of us said is in fact policy and the implementation approach will need to be tackled in a coordinated fashion. I think it would be very helpful if a group that is really up to speed on it could say these are the key policy issues that would have to be considered in parallel with consideration of alternative technical implementations.

Mark Rothstein – University of Louisville – Chair of Law and Medicine
I agree with Bill's comment and as a direction for this group, there's no time to consider privacy in health information exchange. The only thing that I think we could do reasonably well is to discuss what the unique issues are that would be raised in terms of both the PCAST recommendations and the alternatives that are going to be raised by the other group.

Leslie Harris – Center for Democracy & Technology – President & CEO
I think that's a good way to describe it.

Paul Egerman – Software Entrepreneur
Okay, I like that description, Mark. So, based on that description, again this is … not going to be a huge commitment of time. We might have to have one phone call and try to prepare some summary documents before March 17th. Who would be interested in participating?

Leslie Harris – Center for Democracy & Technology – President & CEO
… participate.

Mark Rothstein – University of Louisville – Chair of Law and Medicine
Of course.

Gary Marchionini – University of North Carolina – Dean & Professor
This is something I'd like to participate in as well.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept
I'll try to do it.

Paul Egerman – Software Entrepreneur
So I've got Mark, Leslie, Gary, Steve. Anybody else?

Eileen Twiggs – Planned Parenthood Federation of America – Director
I'd love to do. I am out of the office on vacation next week, though, so I don't know—

Paul Egerman – Software Entrepreneur
We'll figure out a way to get you involved, Eileen.

Leslie Harris – Center for Democracy & Technology – President & CEO
Yes, just say yes.

Paul Egerman – Software Entrepreneur
That's great. So helpful discussions. We have one other topic that I wanted to do on our agenda. Are you all set, Bill, with your part of this discussion?

William Stead – Vanderbilt – Chief Strategy and Information Officer
Yes. I thought that we were also going to have a taskforce to try to refine the possible pilots. Have you decided that that doesn't make sense?

Paul Egerman – Software Entrepreneur
Possible pilots?

William Stead – Vanderbilt – Chief Strategy and Information Officer
Right now in Section D somewhere we've got just rough statements of some possible—

Paul Egerman – Software Entrepreneur
Are you talking about what might be in stage two of meaningful use?

William Stead – Vanderbilt – Chief Strategy and Information Officer
Yes.

Paul Egerman – Software Entrepreneur
I think that's a great idea, but I think we have to have some discussion of those topics first before we launch that pilot, that taskforce. We might want to set that after the next meeting.

William Stead – Vanderbilt – Chief Strategy and Information Officer

Fine.

Paul Egerman – Software Entrepreneur
Do you think we should do it now?

William Stead – Vanderbilt – Chief Strategy and Information Officer
No, I just thought that's what we had talked about, but I think these two topics are going to be enough to keep us out of mischief for a couple of weeks.

Paul Egerman – Software Entrepreneur
Yes, and maybe we'll do that after we do this next piece when I move on to my next slide, but appreciate that. Helpful comment.

So this is a good discussion. I know it's tough to do like a three hour phone call and I want to thank everybody for hanging in there. We have one other topic that we wanted to try to discuss today. The topic that Bill has been primarily dealing with is this concept called Implementation Alternatives, which at least in my mind is fairly technical issues about how, maybe at a high level, but how things like the exchange language works, the record locator service works, and so it may have some alternative technical approaches. They also could just give us some concepts or some processes as to how to do things.

There's also this other issue that other people have raised, which is how do you do adoption? What happens in stage two and what happens in stage three and does it take five years, does it take one year? What is it that ONC should be doing? In the documents that we sent out in Section C, I originally wrote out three different concepts. The first one had something like we'll do a UEL approach and we'll start with UEL's and the second one was like pilot and the third one was like market-driven. I sent that out and I did get some comments similar to Carl's comment about being timid, that the market driven one seems awfully timid. That doesn't seem like that's an alternative.

When I presented this all yesterday at the Policy Committee, somehow as I presented it I changed it a little bit. One of the people in the Policy Committee, Larry Wolfe, said he understood what I said, but actually what he described wasn't quite what I said, but it was better than what I said, because I thought I did sort of run with that a little bit, because he described something extra that Wes Rishel had written about. So what you see on your screen, if you see it, is sort of like three different ways the ONC could sort of approach the whole concept of how it's going to deploy an information exchange concept.

So the first approach is what I call the "architectural approach." It's really the same as what I had before, the UEL approach, but it sort of says, for example, it's stage two, we're going to do some UEL projects, we're going to do some pilot projects and we'll have all of that lead to stage three. When stage three occurs, ONC is going to establish an architecture. ONC is going to say this worked, we did a pilot, say, at the Veterans Administration is very successful, it was a national pilot and now that's the architecture for the entire country. So there will be this kind of UEL, this kind of the AES, the certification criteria for it. Then they write meaningful use and it says something like use the exchange architecture. So that's how stage three works. So that would be one approach.

Another approach—I don't know if I called this right, but—I called it either a pilot approach or a market approach where you would run some pilots, maybe something that exists in the marketplace. But take some of the components that worked right in some of the pilots and you say, "Well, this seems to work and this seems to work." You may allow like two or three different approaches to doing things, and you sort of say when you do your meaningful use criteria, you don't have to necessarily select one of the

technical approaches, but you might, but your criteria that sort of requires one of those technical approaches. So it's a little bit more of a bottom up that you'll allow for some flexibility in terms of how you do things.

The third approach, and if we have Wes on the phone still, he could help me if I said this right, it comes from the blog entry that he did. It's sort of based on this concept of this ultra large system. So I know I have people on the phone who know way more about this than I do, but fundamentally the concept is to say well you look at the Internet and the Internet really is composed of some base level standards and protocols. So you have TCP/IP, which is a communications protocol, and you have HTTP, you have a few other things that are layered on top of it, but then people use those for whatever, like business solutions that they want to use. It's not really an architecture. It's really a whole series of like building blocks. So a third way to approach the vision as described in the PCAST Report, you can tell me if I've got this right, Wes, is there's sort of like two middle …. Well what are the common building blocks that are really needed to create this image, and you simply do your best to promote the use of those building blocks, standardize those building blocks so those standards are out there. So then this third approach, the way you would envision the PCAST Report to meaningful use criteria would simply be whatever the meaningful use criteria is from the standpoint of improving quality and dealing with population health, but you would standardize these building blocks so people would use them to respond to the meaningful use criteria.

So having said all that, I'm curious to know if anything I said made any sense? It might not because I'm not sure I understand it. I don't know if Wes or anybody has any comments.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
Larry's referring to a blog where I sort of compared the concepts of new PCAST Report to issues about … system. You can get into a lot of debate about the definition, but most of the discussion I hear about the large systems is how do we define and manage something that's indefinable and unmanageable by the scale and the evolutionary nature of an ultra large system? One of the focuses is to focus on the narrow part of the hourglass, sort of a standard Gartner slide on this that's in my blog.

I think that, in fact, as I came to understand the UEL, it is an example of trying to standardize the narrow part of the hourglass. I think there are similar definitions for the services. I would say that nothing in the concept is specific to the policy issues, though. And sort of this notion of whether the mechanism for intermediating policy issues is appropriate for the range and scale that we have to deal with policy issues. So I think that blog would be a good thing to keep in mind. I don't think it's a defining characteristic for the approach, though.

Paul Egerman – Software Entrepreneur
Was I close to describing the concepts correctly?

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
Yes.

Paul Egerman – Software Entrepreneur
Anybody else have any comments about this?

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
I was going to say that my blog is about middle out.

Paul Egerman – Software Entrepreneur

Yes, you basically talk about the benefits of middle out.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
Yes, and I think that that's always a good place to start, as long as you don't think you've solved everything by going that way.

Paul Egerman – Software Entrepreneur
The way I understand ultra large systems and Internet, it's really a middle out approach. Is that right or is that not right?

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
We've heard a lot about defining a challenge of ultra large systems and the need for better understanding of them. I don't think I have heard of guiding principles or anything like that that has been sort of accepted as a body of wisdom about dealing with ultra large systems. What most people do, though, when they think ultra large systems, they think of the Internet. Not that it is the only ultra large system in the world, but it's one that seems to have had grown and prospered from a reasonably humble beginning. Certainly the middle out approach to standardization is one of the philosophies that worked well for the Internet. So I think there's a general sense that it is a good way to approach the issue.

Again, I would say that we're not in a position right now to say as an act of faith if we just define the middle, both ends will work out. We simply, the middle, as we've defined for the Internet, was focused on a very specific set of problems about robustness. You can argue whether the fact that it became so broadly applicable was all directly derived from those problems or whether there's a bit of luck there, but I certainly would say that if we look at standardization at the middle and the issues that we can't ignore at the top and bottom, we'd be on the right road.

Paul Egerman – Software Entrepreneur
Let me ask the question to the workgroup generally, which is understanding these three approaches—a useful way to look at this entire issue about what ONC should be doing and how ONC should go about implementing the PCAST Report, or implementing anything with information exchange.

William Stead – Vanderbilt – Chief Strategy and Information Officer
As you know from our interactions, this has evolved in a way that I'm still not totally sure I understand. Defining it as top down or bottom up doesn't really work for me because anything like this that is going to achieve the directions of PCAST and the time of PCAST is going to have a top down component. It will also have many aspects that are bottom up and that in fact may be what Wes means by working from the middle. I mean, I could imagine how that could be.

So I wasn't thinking that it was more helpful to think of the adoption alternatives as in large part relating to the …scale in which you would tackle them. For example, if we get a couple of alternatives defined in a illustrative way, then if a minimalistic UEL emerges from that, it would not be out of the question to say, okay, let's make that part of certification for 2013; exposing something, anything in a minimalistic UEL. That would be an alternative.

It would also seem to me if we were able to get our hands around some pilots, which tested a set of interacting components, but in a very limited scope. Which is in essence what we were outlining as a possibility in the immunization example, you could, in fact, imagine how that could be, how one or more of those pilots could be part of meaningful use. You could also, since those would be a part of what was going on, you could also envision a process whereby there was a top down effort to identify, if you will,

one or more alternative implementation approaches that then could be the subject of research or test beds. As things proved out in those, they could then become part of the ingredients for 2015.

Now to me that is a mix of top down/bottom up kind of process, and yet it is in fact driving towards what would in the end game be assumed to be standardization around some critical set of components at some point in the future. That, to me, is one path to the future. I don't know which of the current three that path would fit in, but I would like to advocate for keeping that path on the table as a possible alternative.

Paul Egerman – Software Entrepreneur
Okay.

Gary Marchionini – University of North Carolina – Dean & Professor
I guess the way I was sort of understanding this, perhaps fits in with Bill's assessment here, but from ONC's point of view the architectural approach would put ONC in the position of pulling together communities to actually develop the UEL. That could be done through some pilot projects. Then the pilot market approach, the bottom up, would be that ONC would actually call for anybody who wants to do this, whether it's the VA or some company. And then would be more responsible for assessing outcomes and progress of those different things and spend more of their time on evaluating how things are going as opposed to kind of drive it from the top. Then the way I guess I was thinking about this third approach was that we really do just let the market sort of figure it out and ONC goes along.

So in the first case, ONC is active in trying to coordinate and bring together the communities to by stage two have something that pretty much everyone agrees to or at least acquiesces to to say they're going to accept it and then by stage three it's actually being put in place and tested. Whereas the second approach, ONC takes more of an evaluation, studying what the marketplace and any players who want to buy in are trying to accomplish. Does that sort of help address it from at least what are the steps and actions that ONC would be taking?

Paul Egerman – Software Entrepreneur
Sure. And Bill's comments also, I'm trying to understand is sort of how to frame this issue. If I read the PCAST Report correctly, and clearly might not be, but I thought it was suggesting like an architectural approach. That the ONC would somehow make the decisions and would implement the architecture.

Carl Gunter – University of Illinois – Professor
Can I insert a comment?

Paul Egerman – Software Entrepreneur
Absolutely.

Carl Gunter – University of Illinois – Professor
This is particularly from the testimony—and I've seen actually several presentations now of this report and looking at the report—one of the key arguments there is that the market is not doing the job here. That we're not getting a competitive market that introduces novel products that help people with the information that they have on their health. That the meaningful use criteria are needed in order to get this out of its rut, so it seems to me saying the market will decide is just saying we don't agree with the PCAST Report on this and it's best to do nothing, and let it take its course. So it doesn't seem to be three is a recommendation beyond let's just let things continue as they are now.

Gary Marchionini – University of North Carolina – Dean & Professor

I agree wholeheartedly with that. I think this A or B or first or second approach seems much more active and in line with what makes sense. I think the way I read the PCAST Report the first few times was that it was quite prescriptive, but then the presentations by Cassel Monday in the meeting were, I thought, quite persuasive to me. At least, that they really were kind of trying to raise a bar rather than being prescriptive, so I felt a lot better about it. So I'd be very comfortable with these two alternatives, with the third alternative being if ONC wants to do that, but I'm not sure that's very, certainly not imaginative or bold.

Paul Egerman – Software Entrepreneur
So what I'm hearing so far is the third one, which is in the paper is called Market Approach, but also what I wrote up here is sort of like building blocks. That you could always standardize fundamental concepts and that's a good idea, but I'm hearing more of an interest in the first two kinds of approaches as they were written in the original working document. Am I hearing that right?

Carl Gunter – University of Illinois – Professor
I would agree with that from my part, but I did want to interject one thing on the first thing. The focus here is on the UEL and I think that maybe there needs to be more focus on the DEAS. In some ways that's the more interesting element here, because there are such diametrically opposed views of what it would come from. This is where it may be important for ONC, for example, to step up and say how it's to be. So a proposal there was to actually create an entity that is the DEAS. You might put out a call for bids for who would do that; the software that they would have and you would actually create an entity to do this thing. The way this is written makes it sound like if you build it, they will come with respect to the UEL, which is that you'll get DEAS's that will do the job, provided you have UEL. That's a very questionable proposition, I think, because of the nature of what's proposed here.

Paul Egerman – Software Entrepreneur
So instead of looking at these terminologies, the top down/bottom up, let's look at it, right now it seems like there's two concepts on the table and I'm not sure if I'm writing it down right. But the first one is instead of saying UEL, we'll just call it exchange architecture. The first concept is you do some things in stage two of meaningful use perhaps around UEL's, but by stage three you've done enough other activities that ONC is in a position to basically specify what I call end to end implementation for the PCAST concept. So that's like the first one.

The second one is we do a number of pilot projects, depending on the success of various elements in the pilot projects ONC picks some things that are valuable, standardizes around those that seem to be successful and valuable. So it may not be as broad and have the same breadth of what the first choice is, but it's a little bit narrower. So it's not necessarily a complete, single end to end implementation, but it's sort of like picking and choosing from successful pilots. Is that a fair characterization of the two choices? Or are we saying maybe there's only one choice?

Carl Gunter – University of Illinois – Professor
So the second alternative is to kind of cut a slice through the thing in narrow categories? The first one is to take the bull by the horns and try to figure out how to build—

Paul Egerman – Software Entrepreneur
This is all an issue of timing, right? The first one is probably the most aggressive. So you say you're going to do some pilot projects, you do a pilot project, say for the VA, you do three or four pilot projects depending on the number of implementation alternatives you come up with. You're going to really do a bakeoff and you're going to time it in such a way that by say stage three you have a winner and you run with it.

Wes Rishel – Gartner, Inc. – Vice President & Distinguished Analyst
If we're suggesting that there is a course where we would recommend an alternative to ONC that we would rate as a reasonable alternative, which is to start from nothing, do the architecture, do the standards and then acquire it to be implemented in the short-term, I would be not supportive of it, frankly. If we were to consider that as an alternative and describe several alternatives that involved a set of steps along the direction of the PCAST Report, which is at best a market venture right now. I would certainly be more supportive of that.

Paul Egerman – Software Entrepreneur
So that's helpful. Absolutely put the question differently. I'm trying to put this out as alternative approaches and what would be like the most aggressive from the standpoint of time frame. So I sort of sketched out something and the first time I sort of called it the UEL approach. That kind of called it top down. Nobody thinks it's a good idea, there's no reason to list it as an alternative. So maybe another way to approach this is to instead of saying we're going to have two or three alternatives is to sort of say there's like one general way we understand how you can go forward, which I think is sort of what you said, Wes, and I think I heard Bill describe it also.

Gary Marchionini – University of North Carolina – Dean & Professor
The most important thing, the thing Bill kind of started out with, we've got to get one or two pictures of what this might be that are more concrete than we have right now before we can really say much about approaches.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
And I think you could start out with an architecture, actually similar to what Wes just said, start out with the architecture, number one. But then as far as implementation, you could do it by building blocks. But I had another question. We talk about using stage two and stage three of meaningful use, but the ONC has other programs ongoing that could be leveraged in an implementation. Would those be factored into this?

Paul Egerman – Software Entrepreneur
Yes, the specific …you're thinking about, Dixie?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Well, like the standards and interoperability framework, like some of the grant programs, one of the grants that I happen to know of about that several people have is actually implementing very fine grained privacy, so we do have some things that could be leveraged in an implementation.

Paul Egerman – Software Entrepreneur
Those are important concepts.

Doug Fridsma – ONC – Acting Director, Office of Standards & Interoperability
I think we're beginning to converge on some really important elements and as we move forward that's going to be important. I think the thing that is going to be helpful is to make sure that we have not only—it may be that you take a look at different approaches or maybe even adoption scenarios, whatever the term is. Based on that analysis you say, well, this one's here or this other one really is not a recommended strategy for implementing. So you may only have of the three or four different options, you might say there's only two of those that even have a chance of being successful. But I think even within those, it's important to help us understand from the committee a range of possibilities. For example, with

regard to scope and timing, one could imagine that there would be a push to do things earlier or maybe there's additional work that needs to be done before we roll things into regulation.

I think it's also important to understand that given the sort of milieu that's out there and the importance of us to make sure that we're being responsible for the dollars that we're spending and how we're trying to attack this problem that some alternatives may require us to redirect resources in a way to run pilots or to run other things that could take away from existing programs, so that we would have to redirect. So it's important to realize that there's a range of options that we need to take a look at that involve scope and timing. I think that's true across that framework. Then I think it's also important to recognize that if we had to choose in an environment in which there were limited resources, some of the options may require us to redirect or to change. And getting some input from the committee about that I think is also going to be important. That, I think, also has to be done in the sense of lost opportunity or path of least regrets, because certain recommendations may eliminate other options simply not because they're not a good idea, but because we have to defer on our ability to work on those things.

Paul Egerman – Software Entrepreneur
That's very helpful, Doug. So what I'm trying to understand is, for example, one of the things I wrote in my original letter was like a market approach and I got feedback that said it was kind of feeble. Then I got a timid and then I bring up CDAC today at this call that says, "Well that is work." So I don't know if that's helpful for you or not to hear when we say that doesn't work.

Another thing I'm starting to put forward is maybe a complete architectural approach, possibly stage three, and I get the sense that there's no a lot of enthusiasm for that. Is that helpful information to include in our report that we talked about that and it's not and here's the reasons why that's not an advisable way to go?

Doug Fridsma – ONC – Acting Director, Office of Standards & Interoperability
I think so. And it's the sort of thing that you can always say that following this approach would require the following things. You would need to be able to do A, B and C, those things would require significant resources. It would mean deferring or delaying other kinds of activities that may or may not reach our timeline. There's a lot of ways that you can sort of say if this is the right approach, these are the kinds of steps that would need to be taken, some of which might be very, very challenging. It could be that even things that may not be—and then I think the committee can kind of say we think there's too much cost or there's too much problem with the implementation to be able to move in that direction and we wouldn't recommend it. But I think we need to have kind of that full range of options with things.

Tim Elwell – Misys Open Source Solutions – Vice President
One of the things that bothered me a little bit is the market-based approach that we talked about previously as being termed feeble and not aggressive enough. Frankly, when you take a look at the marketplace, then you're looking at single digit adoption rates. And most places in the country for EHR is they weren't designed to ever talk to each other. Now we're beginning to see some adoption because of some incentives, etc. To say that the current or even the future adoption of technologies around health information exchange aren't going to be adequate and that this is the right choice at this stage of the game may be a little premature. So if that be the case, why wouldn't a market-based approach perhaps not be recognized as an alternative along with these other types of approaches.

Paul Egerman – Software Entrepreneur
So if you would like a market-based approach to be considered, I'm fine with that.

Carl Gunter – University of Illinois – Professor

I think that the PCAST members would be appalled to have you say that theirs is not a market-based approach. The question is, what kind of government support is needed to establish a robust market, if any. One option could be none. Another option could be some key elements need to be provided. So I think that the term is a misnomer.

Paul Egerman – Software Entrepreneur
Those comments are extremely helpful. So the issue is how much government, how prescriptive, what are the right words? What government action is needed to create the PCAST?

Carl Gunter – University of Illinois – Professor
I think that the report basically says that you need to use meaningful use to get this DEAS and UEL going, then you will have an opportunity for a robust market. And if you don't do that, you won't have.

Jodi Daniel – ONC – Director Office of Policy & Research
To elaborate on that and on Doug's point, I think what's helpful, I think to Mark's standpoint, is understanding what the consequences, trade-offs and some of the issues are rather than just the we don't think this is not the right approach because of this is not feasible. But to say what are the trade-offs, what are the consequences, what are some of the things that we would have to give up to take a particular approach, so we can evaluate based on budgets, based on what we're currently doing and what we'd have to set aside to move in a particular direction. So since we're not asking for specific recommendations, it would be helpful to have sort of the analysis. The thinking that is going behind some of the conclusions that folks seem to be making about particular options so that we can weigh those trade-offs based on some information that we would have to process, such as how it would impact our programs and budgets and that kind of thing. Does that make sense?

Paul Egerman – Software Entrepreneur
It does make sense. So what's helped me to get the discussion started is trying to figure out what are the two or three or four categories or options that we would put forward that would help ONC decide.

Carl Gunter – University of Illinois – Professor
Can I take a cut at that, Paul? It's basically just the three of yours but with a little bit of a different phrasing. So one recommendation could be just this DEAS and UEL approach is a great idea and people should get behind trying to formulate those things immediately, with standards efforts to do the UEL and selecting a party to run the DEAS. That would be a kind of full-bore, we're confident this is going to work along these lines as needed kind of view. A second one is, we think there's some great ideas here and that some pilots would help to determine the pros and cons, and to show some of the benefits and might actually startup competitive markets in certain categories, and then we could use that as a springboard for further things later. The third category would be something like we don't really buy that this is the way to go. It seems infeasible and we think that things proceeding pretty much organically as they are now will be sufficient.

Paul Egerman – Software Entrepreneur
I like that.

Carl Gunter – University of Illinois – Professor
We could give our recommendation on it. I personally think two is the option among those, but then they might have a different opinion.

Paul Egerman – Software Entrepreneur

Extremely helpful, Carl. So the first question is, do we go with the way Carl framed this? So choice one, DEAS puts UEL approach. We basically ONC architects approach. Second is pilots and helps decide and you sort of pick from them. The third one is proceed the way we're proceeding is adequate, is sufficient. Is this a good way to frame this discussion?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes.

Paul Egerman – Software Entrepreneur
Okay, so let's look at them, we're almost out of time, but let's look at the very first one, the DEAS and UEL approach. What's the implications of that?

Carl Gunter – University of Illinois – Professor
ONC could work to convene a UEL standards body, possibly leveraging their existing standards efforts or trying to hang it off of some other standards entity. That would be a kind of full-bore approach to this. You create a charter; you would get to work on building that. The DEAS is a little bit more of a question. I think that one's a little tougher, because there are several different ideas about how that would work. But one of the approaches would be you create an entity that runs the DEAS, possibly—and I think this was the hint in the thing—is it would be something like a government entity. ONC would build a DEAS, perhaps contract to somebody to build it buy it and then they would run it. It would run over the UEL.

Paul Egerman – Software Entrepreneur
What other implications are there for this? What other actions would ONC have to take? I mean, one that strikes me is if ONC wanted to get this done for stage three, one implication would be that ONC would somehow have to balance everything else that's going on in stage three. Which would mean that presumably something else in stage three might not get done as a result, because this would take a lot of time and energy. Is that a fair statement?

Carl Gunter – University of Illinois – Professor
Or there might be stage three things that would be folded into this. You would say they'd have to be part of it. Like if there were reporting requirements, you would insist they be done with the UEL.

Paul Egerman – Software Entrepreneur
Do we have any other comments?

Doug Fridsma – ONC – Acting Director, Office of Standards & Interoperability
I think the implication of that, though, is if reporting requirements are done using this UEL, then there are other activities that are ongoing that probably should stop.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Depending on what the UEL turns out to be.

Doug Fridsma – ONC – Acting Director, Office of Standards & Interoperability
Right. I think it's important for us to have a range of alternatives, that to focus on kind of the analysis and what that would look like, and realize that there are going to be options, both in terms of timing, scope and resources, that will likely require kind of a reconsideration of other activities. I certainly appreciate Bill's comments about you'd like to be able to have this developed side-by-side, and that, in fact, gives you an option of not rip and replace, but replace and rip. Or maybe that was Wes that said that. But to do that, there's going to be a very careful balancing act that needs to be done, because we will have to make sure that the resources that we have are properly allocated to kind of get us to that sweet spot.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Farzad mentioned that side-by-side and the implications of it in an earlier meeting, and I went out to our people at SAIC who are working on ultra large systems of systems and I asked whether they had ever done these kind of side-by-side implementations. A couple of them had, but the result consistently is always that one gets thrown away and they go with the second one. So I think the idea of side-by-side is not a good one.

Paul Egerman – Software Entrepreneur
Were you saying something, Bill?

William Stead – Vanderbilt – Chief Strategy and Information Officer
All my scar tissue is different than that, Dixie, for what it's worth. I believe there is a fundamental difference between how you communicate with …that you have an established relationship and you know what you're trying to do to accomplish an existing workflow from when you're trying to assemble the set of information to answer a question when you don't know where it is and so forth. So I believe that some, well, I think for some long time some form of the existing transaction processing exchange infrastructure would exist for transaction processing. Presumably, things that it was doing that involved working with gory, complex information, which it's not going to scale the handle well, would eventually transition to the new architecture as we figured out how to make the new architecture work and as we figured out how to appropriately handle it in policy. Any way you cut the cookie, back to Wes' comments about standards, we cannot, if we are going to go in the PCAST direction, it's going to have to for some time be side-by-side and it's going to have to be tested.

Paul Egerman – Software Entrepreneur
I respectfully agree with those comments. The comment I'd also give you, Dixie, is when you look at side-by-side implementations, a lot of times people look at that issue and it's sort of how they look at things for implementing it at a single organization. We have to keep in mind, we're talking about a national deployment here and I think there's no choice but to have some sort of transition to do a national deployment. You can't get, for example, every payer, every insurance company in the country to suddenly on a certain day switch to a totally different way of processing claims.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
That's what I was trying to say, that you really can't independently just start out two paths. But as Bill and you both described, you need to always from the beginning be thinking of convergence of the two and not just have a bakeoff between two entirely different—

Paul Egerman – Software Entrepreneur
I want to get back to these three different implementation approaches. Carl, you did a great job of sort of synthesizing our comments, so we've got to refine it to three comments and concepts. And the first one also very helpful, Carl, in terms of ranking, saying what would be some of the steps ONC would need to take. I have a quick question for you, Doug. How much detail do you want on each one of these three? You want to say here are the advantages and disadvantages, here are the risks, the costs? How much detail do you want us to go into these three?

Doug Fridsma – ONC – Acting Director, Office of Standards & Interoperability
I think part of what Jodi was saying is that it's probably better to focus on analysis than kind of a value judgment, and I think that's going to be helpful. One of the things that's going to be important and that we're going to need your guidance with all of this is that there is a real need for us to say something in the

rule that we'd like to get out this summer and in the final rule for the NPRM, for the standards and certification criteria.

Paul Egerman – Software Entrepreneur
And we will do that.

Jodi Daniel – ONC – Director Office of Policy & Research
There is a clear sense of urgency set forth in the PCAST Report. So the question is, is there something, at least one question I have is, is there something that would be valuable, go …path of least regret, valuable and consistent with what we're doing, but also going towards a broader vision that we should be at least considering, proposing in stage two.

Paul Egerman – Software Entrepreneur
It's a great comment and so that will be what we're addressing on our call on March, two weeks in March 17th. So what we'll do is we'll have these two taskforces give us the preparatory work and that's what we'll address on our call on March 17th. I'm looking at the clock and we're just about out of time. Did you have any other comments you wanted to make, Bill?

William Stead – Vanderbilt – Chief Strategy and Information Officer
No.

Paul Egerman – Software Entrepreneur
Terrific. Then I want to thank everybody for their efforts and let's see if we have any public comments. If you could open the line for public comments.

Judy Sparrow – Office of the National Coordinator – Executive Director
Operator, could you check with the public and see if anybody wishes to make a comment?

Operator
We have a public comment.

Judy Sparrow – Office of the National Coordinator – Executive Director
Could you please identify yourself, your name and your organization?

John Travis – Cerner – Senior Director and Solution Strategist, Regulatory Compliance
I've been following the PCAST discussions very, very closely and with a lot of fascination. Part of it is, we have some perspective historically on atomic security and privacy policies with work we've done in the U.K. with sealed envelopes and some of their efforts. The one thing I just would offer is whatever you elect to do, either in a pilot sense, I caution or I guess just encourage great thought be given to using certification as a place to test enabling EHR's to participate in pilots and making that a level set for nominating any certification criteria. Because you still are going to have the effect of asking all the EHR vendors to develop to that requirement for whatever stage you pick.

I think for stage three very possible. I think for stage two you still wind up being back on the critical path of the time frame that we are for responding to anything that comes out as a delta over current market …capabilities for systems. So if you're expressing any pilot requirements as certification criteria in stage two, maybe there are things to consider as options criteria. But I'd offer real thought to make anything a mandatory certification criteria that that's novel or new, because it is going to have the effect of still impacting every vendor that's wishing to seek stage two certification, if that makes sense.

Judy Sparrow – Office of the National Coordinator – Executive Director
Thank you, Mr. Travis. Do we have any other comments?

Operator
There are no further comments at this time.

Judy Sparrow – Office of the National Coordinator – Executive Director
Thank you. Thank you, Paul.

Paul Egerman – Software Entrepreneur
Thank you, Judy Sparrow. Thank you, Doug Fridsma and Jodi Daniel and Jamie …and the entire ONC team. Thanks to the workgroup. I think we had an excellent call. I think we have some work ahead of us with the task groups and I'm looking forward to our next call on March 17th. Thank you very much.

Judy Sparrow – Office of the National Coordinator – Executive Director
Thank you. Bye.

Public Comment Received During the Meeting

1. Apixio has a white paper that provides a potential illustration of a solution that is compatible with the current direction of NHIN: www.apixio.com/ihewhitepaper - we would be interested in working to contribute this architecture as a potential illustration.